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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,416	10/31/2003	Thomas Y-T. Tam	H0004478	2098

7590 11/16/2006

Honeywell International Inc.
15801 Woods edge Road
Colonial Heights, VA 23834

EXAMINER	
BUTLER, PATRICK	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,416	TAM ET AL.	
	Examiner	Art Unit	
	Patrick Butler	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) *4,15,23 and 24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-14, 16-22, and 25-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20031222; 20060821*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Applicant's Amendments and Accompanying Remarks, filed 21 August 2006, have been entered and have been carefully considered. Claims 25-34 are new, Claims 1 and 12 are amended, no Claims are canceled, and Claims 1-34 are pending, with Claims 4, 15, 23, and 24 previously withdrawn.

Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1-3, 5-9, 11, 25-30, and 34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 5-7 of copending Application No. 11/205,952.

Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 1 and 3 are similar to Claims 1 and 3 of the copending application with the only difference being "about" two methyl groups, which would cause the two claims to overlap in scope, and "wherein the air circulation in said oven is in a turbulent" which would necessarily be the case in Application No. 11/205,952 given that a forced air convection oven is used. Claims 2 and 25-28 are similar to Claim 2 of the copending application because their ranges both overlap for production greater than 2 g/min. and for the similarities as indicated in their dependencies as previously described. Claim 5 is similar to Claim 5 of the copending application in that the feed yarn has a tenacity that overlaps when it is greater than 6 g/d and for the similarities as indicated in their dependencies as previously described. Claims 6-9 are similar to Claim 6 of the copending application in that they both overlap when the range is 26-46 g/d and for the similarities as indicated in their dependencies as previously described. Claim 11 is similar to Claim 7 of the copending in that the both overlap when the feed yarn has i.v. greater than 12 g/d and when the feed yarn has a tenacity above 21 g/d and for the similarities as indicated in their dependencies as previously described. Claims 29 and 34 are similar to Claim 1 of the copending application in that the steps and formulas overlap in equation set I of the copending application. Claim 30 is similar to Claim 2 of the copending application because their ranges both overlap for production greater than

2 g/min. and for the similarities as indicated in their dependencies as previously described.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-14, 16-22, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavesh et al. (U.S. Patent No. 4,551,296) in view of Maurer et al. (US Patent No. 4,411,854), van Breen et al. (US Patent No. 5,045,258), and Suwanda et al. (US Patent No. 5,505,900).

With respect to Claim 1, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (5 dl/g-35 dl/g) (see col. 23, lines 51-59) and extracting the first and second solvent from the filament (fewer than two methyl groups per thousand carbon atoms, and less than 2 wt. % of other constituents) (see Kavesh, Claim 1), passing said feed yarn at a speed of V_1 = 100 cm/min = 1 m/min into a heated tube (oven) having a length of L = 1.5 meters at a temperature of 150°C (130°C -160°C) (see col. 25, lines 12-40; col. 17, line 28; Example 533), passing said feed yarn continuously through said tube to have a stretch ratio of 2.5, which would necessarily

provide an exit velocity of V_2 = 2.5 m/min, which would provide the following calculations:

L/V_1 = 1.5 m / 1 m/min = 1.5 min ($0.25 \leq L/V_1 \leq 20$, min)

V_2/V_1 = stretch ratio = 2.5 ($1.5 \leq V_2/V_1 \leq 20$)

$(V_2 - V_1)/L$ = (2.5 m/min – 1 m/min) / 1.5 min = 1 min^{-1} ($1 \leq (V_2 - V_1)/L \leq 60$, min^{-1})

$2L/(V_1+V_2)$ = 2 * 1.5 m / (1 m/min + 2.5 m/min) ≈ 0.86 min ($0.55 \leq 2L/(V_1+V_2) \leq 10$, min)

Kavesh teaches that the tube length of 1.5 m is employed (col. 17, line 28), but does not expressly teach a tube length of 1.5 m for Example 533. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kavesh's 1.5 m tube with the requirement for a tube in Example 533 because as exemplified, it is a suitable tube length for stretching.

Moreover, Maurer et al. teaches using a similar oven length of 1 meter (see col. 6, lines 58-60), which similarly meets the limitations of the claim via the claim's inequality statements.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Maurer's oven length in the process of Kavesh because Kavesh requires a length for the stretching apparatus Maurer teaches a stretching oven length for successful practice of stretching polyethylene.

Kavesh teaches using nitrogen (see col. 23, lines 44-47) but does not expressly teach using air.

Van Breen et al. teaches using an environment in stretching that is either nitrogen or air (air oven) (see col. 4, lines 5-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine van Breen's air with Kavesh's process of stretching because both are suitable environments for stretching (see van Breen, col. 4, lines 5-9).

Kavesh teaches having the environment blanket the stretched yarn (see col. 23, lines 44-47) but does not expressly teach forcing the air.

Suwanda teaches drawing yarn in a forced air convection oven (forced convection air oven; wherein the air circulation in said oven is in a turbulent state) (see col. 7, lines 16-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suwanda's practice of using a forced air convection oven in the process of Kavesh in order to control the air temperature (see Suwanda, col. 7, lines 16 and 17).

With respect to Claims 2, Kavesh teaches that the yarn for Example 533's denier was 216 and was 48 filaments. The mass throughput is therefore approximately:

216 denier * (1 g/ 9000 m) / denier * 2.5 m/min = 0.06 g/min

This is for 48 filaments, but Kavesh teaches the production of yarns of 16, 120, and 240 filaments (see col. 7, lines 57-59), which would yield a mass flow of 0.02 g/min, 0.15 g/min, and 0.3 g/min, which would read on the claim (greater than 0.25 g/min).

With respect to Claim 3, as the fibers are passing through a tube unassisted by rollers inside the tube, no increasing tension aside from air drag would occur.

With respect to Claim 5, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (8 dl/g-30 dl/g) (see col. 23, lines 51-59) and extracting the first and second solvent from the filament (fewer than one methyl groups per thousand carbon atoms, and less than 1 wt. % of other constituents) (see Kavesh, Claim 1). Kavesh teaches that the tenacity of the feed yarn is 21 g/d (5-76 g/d) (see Example 523 used to feed Example 533).

With respect to Claims 6-8, Kavesh teaches that the feed yarn is 21 g/d (11-66 g/d [Claim 6], 16-56 g/d [Claim 7], 21-51 [Claim 8]) (see Example 523 used to feed Example 533).

With respect to Claim 9, Kavesh teaches a process for drawing as previously described as applied to Claim 5. However, the feed yarn's tenacity is 21 g/d.

Kavesh teaches that increased drawing provides for increased tenacity (compare col. SR and Ten g/d in col. 25, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine increased stretching in Example 523 in order to obtain higher feed yarn tenacity in Example 533. The motivation would have been to obtain an overall higher tenacity.

With respect to Claim 10, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (10-25 dl/g) (see col. 23, lines 51-59).

With respect to Claim 11, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (12-20 dl/g) (see col. 23, lines 51-59) and extracting the first and second solvent from the filament (fewer than 0.5 methyl groups per

thousand carbon atoms, and less than 0.5 wt. % of other constituents) (see Kavesh, Claim 1). Kavesh teaches that the tenacity of the feed yarn is 21 g/d (21-51 g/d) (see Example 523 used to feed Example 533).

With further respect to Claim 34, the Claims are met via their limitations being broader than Claim 1, particularly equation set I. With respect to the preamble transitional phrase "consisting essentially of," the invention of Kavesh has not been clearly indicated by Applicant's Specification to contain any steps that would materially affect the basic and novel characteristics of the claimed invention as previously claimed. Thus, for purposes of applying prior art, "consisting essentially of" will be construed as "comprising" (See MPEP 2111.03).

With respect to Claim 12, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (5 dl/g-35 dl/g) (see col. 23, lines 51-59) and extracting the first and second solvent from the filament (fewer than two methyl groups per thousand carbon atoms, and less than 2 wt. % of other constituents) (see Kavesh, Claim 1), passing said feed yarn at a speed of V_1 = 100 cm/min = 1 m/min into a heated tube (oven) having a length of L = 1.5 meters at a temperature of 150°C (130°C -160°C) (see col. 25, lines 12-40; col. 17, line 28; Example 529), passing said feed yarn continuously through said tube to have a stretch ratio of 1.5, which would necessarily provide an exit velocity of V_2 = 1.5 m/min, which would provide the following calculations:

L/V_1 = 1.5 m / 1 m/min = 1.5 min ($1 \leq L/V_1 \leq 20$, min)

V_2/V_1 = stretch ratio = 1.5 ($1.5 \leq V_2/V_1 \leq 20$)

$(V_2 - V_1)/L$ = (1.5 m/min – 1 m/min) / 1.5 min ≈ 0.33 min^{-1} ($0.01 \leq (V_2 - V_1)/L \leq 1$, min^{-1})

$2L/(V_1+V_2)$ = 2 * 1.5 m / (1 m/min + 1.5 m/min) = 1.2 min ($1.1 \leq 2L/(V_1+V_2) \leq 10$, min)

Kavesh teaches that the tube length of 1.5 m is employed (col. 17, line 28), but does not expressly teach a tube length of 1.5 m for Example 533. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kavesh's 1.5 m tube with the requirement for a tube in Example 533 because as exemplified, it is a suitable tube length for stretching.

Moreover, Maurer et al. teaches using a similar oven length of 1 meter (see col. 6, lines 58-60), which similarly meets the limitations of the claim via the claim's inequality statements.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Maurer's oven length in the process of Kavesh because Kavesh requires a length for the stretching apparatus Maurer teaches a stretching oven length for successful practice of stretching polyethylene.

Kavesh teaches using nitrogen (see col. 23, lines 44-47) but does not expressly teach using air.

Van Breen et al. teaches using an environment in stretching that is either nitrogen or air (air oven) (see col. 4, lines 5-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine van Breen's air with Kavesh's process of stretching because both are suitable environments for stretching (see van Breen, col. 4, lines 5-9).

Kavesh teaches having the environment blanket the stretched yarn (see col. 23, lines 44-47) but does not expressly teach forcing the air.

Suwanda teaches drawing yarn in a forced air convection oven (forced convection air oven; wherein the air circulation in said oven is in a turbulent state) (see col. 7, lines 16-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suwanda's practice of using a forced air convection oven in the process of Kavesh in order to control the air temperature (see Suwanda, col. 7, lines 16 and 17).

With respect to Claim 13, Kavesh teaches that the yarn for Example 529's denier was 366 and was 48 filaments. The mass throughput is therefore approximately:

366 denier * (1 g/ 9000 m) / denier * 1.5 m/min ≈ 0.053 g/min

This is for 48 filaments, but Kavesh teaches the production of yarns of 16, 120, and 240 filaments (see col. 7, lines 57-59), which would yield a mass flow of 0.02 g/min, 0.15 g/min, and 0.31 g/min, which would read on the claim (greater than 0.25 g/min).

With respect to Claim 14, as the fibers are passing through a tube unassisted by rollers inside the tube, no increasing tension aside from air drag would occur.

With respect to Claim 16, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (8 dl/g-30 dl/g) (see col. 23, lines 51-59) and

extracting the first and second solvent from the filament (fewer than one methyl groups per thousand carbon atoms, and less than 1 wt. % of other constituents) (see Kavesh, Claim 1). Kavesh teaches that the tenacity of the feed yarn is 21 g/d (5-76 g/d) (see Example 523 used to feed Example 529).

With respect to Claims 17-19, Kavesh teaches that the feed yarn is 21 g/d (11-66 g/d [Claim 17], 16-56 g/d [Claim 18], 21-51 [Claim 19]) (see Example 523 used to feed Example 529).

With respect to Claim 20, Kavesh teaches a process for drawing as previously described as applied to Claim 12. However, the feed yarn's tenacity is 21 g/d.

Kavesh teaches that increased drawing provides for increased tenacity (compare col. SR and Ten g/d in col. 25, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine increased stretching in Example 523 in order to obtain higher feed yarn tenacity in Example 529. The motivation would have been to obtain an overall higher tenacity.

With respect to Claim 21, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (10-25 dl/g) (see col. 23, lines 51-59).

With respect to Claim 22, Kavesh teaches a process for drawing a multifilament gel-spun polyethylene with 22.6 IV (12-20 dl/g) (see col. 23, lines 51-59) and extracting the first and second solvent from the filament (fewer than 0.5 methyl groups per thousand carbon atoms, and less than 0.5 wt. % of other constituents) (see Kavesh,

Claim 1). Kavesh teaches that the tenacity of the feed yarn is 21 g/d (21-51 g/d) (see Example 523 used to feed Example 529).

Claims 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavesh et al. (U.S. Patent No. 4,551,296) in view of Maurer et al. (US Patent No. 4,411,854), van Breen et al. (US Patent No. 5,045,258), and Suwanda et al. (US Patent No. 5,505,900) as applied to Claim 1 above, and further in view of Bory et al. (US Patent No. 4,248,577).

With respect to Claims 25-29, Kavesh teaches mass throughput for 240 filaments of 0.3 g/min as previously described. Kavesh does not expressly teach a mass throughput of at least 0.42 g/min (Claim 25), 0.5 g/min (Claims 26 and 29), 1 g/min (Claims 27 and 30) or 4 g/min (Claim 28).

Bory teaches using a spinneret for gel spinning (see col. 5, lines 57-59) and spinning up to 1,000,440 filaments (see col. 6, lines 40-47), with examples such as 3,750 filaments (see col. 6, line 66 through col. 7, line 2). As combined with Kavesh, the mass throughput is therefore approximately:

0.3 g/min * 3,750 filaments in new spinneret / 240 filaments in replaced spinneret = 4.7 g/min

This mass throughput of 4.7 g/min reads on a mass throughput of at least 0.42 g/min (Claim 25), 0.5 g/min (Claims 26 and 29), 1 g/min (Claims 27 and 30) or 4 g/min (Claim 28)

With further respect to Claims 29 and 30, the Claims are met via their limitations being broader than Claim 1, particularly equation set I.

With respect to Claim 31, as previously described, Suwanda teaches drawing yarn in a forced air convection oven (wherein the air circulation in said oven is in a turbulent state) (see col. 7, lines 16-21).

With respect to Claim 32, Kavesh teaches that the process draws the yarn at a stretch ratio of 1.5, thus to at least some degree, the yarn-to-be-drawn is essential undrawn before the process (feed yarn is an essentially undrawn state prior to passing said feed yarn into said oven) (see col. 25, lines 12-40; Example 529). If it were not essentially undrawn, then any subsequent drawing would destroy the fiber. Moreover, as illustrated in subsequent examples, even more drawing could be done, such as a ratio of 2.5 (see col. 25, lines 12-40; Example 533).

With respect to Claim 33, Kavesh teaches that the xerogel fibers 47 (feed yarn) are wound on a spool 52 and a plurality of spools (creel) is fed into the stretching line (oven) (see col. 8, lines 30-39; Fig. 5).

Response to Arguments

Applicant's arguments filed 21 August 2006 have been fully considered but they are not persuasive.

Applicant argues with respect to the IDS. Applicant's arguments appear to be on the grounds that:

1) The reference omitted in the previous IDS submission is submitted, and the reference lacking translation is submitted in translated form.

Applicant argues with respect to the ODP rejections. Applicant's arguments appear to be on the grounds that:

2) As amended, the claims are clearly patentable over the cited claims of the copending application.

3) Claim 10 was not addressed specifically in the rejection other than the summary.

Applicant argues with respect to the 35 USC 102(b) rejection. Applicant's arguments appear to be on the grounds that:

4) The claimed feature of the polyethylene having "fewer than two methyl groups per thousand carbon atoms and less than 2 wt. % of other constituents" refers to the polyethylene comprising the yarn, not to any residual solvent or material in the yarn after extraction. Thus, the feature of the polyethylene is not taught by Kavesh et al.

5) The hot tube's length is not given with respect to the Example cited. However, another Example's hot tube length is relied on for an anticipation rejection.

6) In the Office Action mailed 01 June 2006, an error in the first equation on page 5 in parenthetical phrase "L" should be "L/V_1".

7) As Kavesh teaches stretching in a blanket of nitrogen, the "air" limitation in "forced convection air oven" is not met.

8) Kavesh et al. do not teach forced convection as is generally understood to meet the "forced convection" limitation in "forced convection air oven".

9) To meet the limitation of mass throughput, the Examiner applied the teaching of multiple quantities of apertures to Example 533 despite Example 533's clearly stated 48 filaments. Thus, improperly, portions of the disclosure are rearranged to create an example.

10) As improperly combined, the mass throughput of Kavesh et al. is lower in two instances than the claimed throughput of Claim 2.

11) As improperly combined, there is no reason to assume that the drawing speeds of the 240 filaments would be identical to those for the 48-filament yarn in Example 433. Greater filament-to-filament variation of denier and tensile properties within the yarn would result. It is generally necessary to draw a yarn with more filaments at a slower speed to achieve the same degree of stretch. The assumption that mass throughput of the drawing operation would scale with additional filaments is inconsistent and not based on the rejection's facts.

12) With respect to Claims 5 and 11, the phrase "fewer than two methyl groups per thousand carbon atoms and less than 2 wt. % of other constituents" refers to the properties of the starting polyethylene not to any solvent extraction. Thus, the feature of the polyethylene is not taught by Kavesh et al.

13) New claims 32 and 33 require essentially undrawn feed yarn, which is in contradistinction to Example 533's double stretching.

14) In the Office Action mailed 01 June 2006, an error in the calculations on page 7 incorporates data from Example 533 rather than 529. The exit velocity V_2 incorrectly shows 1.75 and 2.5, though 1.5 should be used in the calculations.

15) In the Office Action mailed 01 June 2006, an error was noted in the first calculations on page 8 in that the denier of Example 529 was 366 as opposed to 216 stated therein.

Applicant argues with respect to the 35 USC 103 rejection. Applicant's arguments appear to be on the grounds that:

16) The tenacity compared in the examples is improper because none of them compare stretching on yarn of the same denier.

17) The amendments to the previous claims and the new limitations and mass throughput limitations of claims 25-34 and are not met by Kavesh et al.

The Applicant's arguments are addressed as follows:

1) The references are acknowledged as being considered via the IDS reviewed with this action.

2) Applicant's arguments with respect to claims rejected for ODP have been considered but are moot in view of the new ground(s) of ODP rejection as necessitated by amendment to the claims.

3) Claim 10 has been removed from the ODP rejection.

4 and 12) The Examiner interprets the phrase to indicate a property of the polyethylene in the yarn after it has been formed. As the only methyl present in Kavesh is in one solvent that is removed from the yarn, Kavesh meets the limitation both because it contains polyethylene without additives and because it removes the methyl in the process of forming the yarn.

5) Applicant's arguments with respect the hot tube's length not being an anticipation rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kavesh as described above.

6) The error has been corrected in instances of the equation in this Office Action.

7 and 8) Regardless of the gas used in Kavesh, the Examiner interprets the limitation "forced convection air oven" to be an apparatus limitation of the oven. Regardless whether convection is used in Kavesh, the Examiner interprets the limitation "forced convection air oven" to be an apparatus limitation of the oven that does not require its use of causing convection. However, as amended, the claim clarifies that air is in the oven and that its convection is utilized via the turbulent state of the air. Thus, Applicant's arguments with respect to the air's turbulent state have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as described above.

9) Given Kavesh's disclose of multiple examples of aperture quantities, these examples are relied up for sufficient mass throughput as described with respect to Claim 2.

10) The higher quantities are relied upon to meet the claim's limitation. As the lower quantities are not relied upon, discussion of their sufficiency to meet the limitations of the claim is moot.

11) Regardless of additional motivations having pros and cons, the reference provides the example controlling for drawing ratio and feed speed (see col. 25, lines 14-40). Thus, the drawing speed is set. Additionally, regardless of additional motivations having pros and cons, the reference teaches that the "number of apertures ... is not

critical" (see col. 7, lines 55-59). Thus, the number may be changed without respect to additional motivations of pros and cons.

Upon considering the Arguments with respect to filament-to-filament variation; tensile properties; and relationships between filament number, draw speed, and degree of stretch, the arguments of counsel cannot take the place of evidence in the record.

13 and 17) Applicant's arguments with respect to claims 32 and 33 have been considered but are moot in view of the new ground(s) of rejection.

14) The error has been corrected in instances of the equations with respect to Example 529 in this Office Action. Regardless, the data meet the limitations within the claimed inequality statements.

15) The error has been corrected in instances of the equations with respect to Example 529's denier in this Office Action. Regardless, the mass throughput remains in the ranges claimed.

16) As tenacity as referenced is in g/d, the denier, or d, has normalized the tenacity for comparison.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mo.-Th. 7:30 a.m. - 5 p.m. and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

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